

A blood test for existing heartworm infection is recommended before beginning a prevention program to confirm that your pet is not already infected with the disease. In addition, annual re-testing is recommended to check your pet's status and ensure that the appropriate medication is being prescribed.

*Heartworm infections are preventable.  
Check with your veterinarian today to help ensure that  
your pet is protected.*

The AVMA appreciates the assistance of the  
American Heartworm Society  
[www.heartwormsociety.org](http://www.heartwormsociety.org)

## And Now A Note On Your Pet's General Good Health

*A healthy pet is a happy companion. Your pet's daily well-being requires regular care and close attention to any hint of ill health. The American Veterinary Medical Association suggests that you consult your veterinarian if your pet shows any of the following signs:*

- Lumps or swelling
- Reduced or excessive appetite or water intake
- Marked weight loss or gain
- Limping, stiffness, or difficulty getting up or down
- Difficult, discolored, excessive or uncontrolled waste elimination (urine and feces)
- Abnormal discharges from any body opening
- Head shaking, scratching, licking, or coat irregularities
- Changes in behavior or fatigue
- Foul breath or excessive tartar deposits on teeth

*Pets age more rapidly than people and can develop disease conditions that can go unnoticed, even to the most attentive pet owner. Veterinarians are skilled in detecting conditions that have gradual onset and subtle signs. Early detection allows problems to be treated most easily and affordably. Help foster early detection and treatment by scheduling regular examinations.*



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# What You Should Know About HEARTWORM DISEASE



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Today • Tomorrow • Always

*Heartworm disease is a preventable, but serious and potentially fatal, parasitic disease that primarily affects dogs, cats and ferrets. It also infects wild animals such as foxes, wolves, coyotes, and California Sea Lions. There are documented human infections, but they are thought to be rare and do not result in clinical disease.*

## How is heartworm disease transmitted and what does it cause?

Heartworms are transmitted from animal to animal by mosquitoes. When an animal is bitten by an infected mosquito, young heartworms (called microfilariae) are transmitted to that animal. In about two weeks, the microfilaria develop into larvae. The larvae, as they mature, move through the animal's body and eventually enter the heart and blood vessels. Over the next several months, the growing heartworms reach adult size (female worms can reach up to 14 inches in length) and reproduce. In time, the worms cause injury to the pulmonary vessels and heart. This can lead to severe lung disease, heart disease, and damage to other organs. Heartworms may survive for 5 to 7 years in dogs.



## Where is heartworm disease found?

Geographically, heartworms are a potential threat in every state except Alaska, as well as in many other countries around the world. All dogs, regardless of age, sex, or living environment, are susceptible to heartworm infection. Indoor, as well as outdoor, cats are also at risk for the disease. If you plan to travel with your dog or cat to a different part of the country, ask your veterinarian about the risk of heartworm disease in the area where you are going to relocate or visit.

## How can I tell if my pet has heartworm disease?

**Dogs:** If your dog has been recently or mildly infected with heartworms, it may initially show no signs of disease. However, as the disease progresses, your dog may cough, become lethargic, lose its appetite or have difficulty breathing. You may notice that your dog seems to tire rapidly after only moderate exercise.

Your veterinarian will test your dog's blood for the presence of adult heartworms. Further tests, such as

chest x-rays and an echocardiogram, may be necessary to confirm the diagnosis and to help determine the severity of the infection.

**Cats:** Signs of possible heartworm infection in cats include coughing, respiratory distress, and vomiting. (In rare cases, a cat may suddenly die from heartworms.)

The diagnosis of a heartworm-infected cat is more difficult than with dogs. A series of different kinds of tests may be needed to help determine the likelihood of heartworm infection being the cause of your cat's illness and, even then, the results may not be conclusive.

## How can my pet be treated?

**Dogs:** As with most medical problems, the best defense is prevention. However, if your dog is infected with heartworms, there is an FDA-approved treatment available. Although there is some risk involved in treating a dog for heartworms, serious complications are rare among dogs that are otherwise in good health and if the disease is detected early.

The goal of heartworm treatment is to kill the adult worms that are present in your dog's body. While your dog is hospitalized and for a period of time afterwards, it will require complete rest and may need additional medications to help limit inflammatory reaction as the worms die and are absorbed by the body.

**Cats:** There is currently no effective and safe treatment for heartworm infection in cats. If your cat is diagnosed with heartworms, your veterinarian may recommend medications to limit the inflammatory response and the resulting heartworm disease.

## Can heartworms be surgically removed?

Some veterinarians are equipped for surgical removal of heartworms from dogs and/or cats. This procedure, however, is typically reserved for severe cases.

## Can heartworm disease be prevented?

Heartworm disease is almost 100% preventable in dogs and cats. There are several FDA-approved heartworm preventives available in a variety of formulations. Your veterinarian can recommend the best method of prevention based upon your pet's risk factors and lifestyle.